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EXAMINER	
SAIN, GAUTAM	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/779,441	TULI, RAJA SINGH	
	Examiner	Art Unit	
	Gautam Sain	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/04,1/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1) This is a NonFinal rejection in response to original application filed on 2/13/2004.

2) Claims 1-12 are pending.

3) Effective filing date is 2/2/2000 (based on continuation of 09/496,172).

Claim Rejections - 35 USC § 103

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4-1) Claims 1, 2, 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nahi et al (US 6084584, filed Oct 1, 1996), in view of Chatterjee et al (US 5774126, issued Jun 1998).

Regarding independent claims 1 and 2, Nahi teaches compresses this reduced virtual display, which is sent to a remote device capable of receiving, decompressing, storing into memory and displaying it to a user. For example, Nahi discloses a computer system supporting portable interactive graphics display tablet, where graphical data may be efficiently transferred from the host computer to a portable display tablet by compressing the graphical display data prior to transmission by the host computer to the portable display table or by maintaining the compressed form of the graphical display data between generational of such data (Nahi, col 4, lines 27-35; Title). Then, the data tablet decompresses the transmitted compressed data (col 4,

lines 50-54) and the portable display tablet displays the graphical data on a low power wireless data transceiver at the portable tablet (col 3, lins 65-67).

Nahi does not expressly teach, a browser which renders information onto a virtual display in its memory, whereby a software program reduces the color depth of the rendered virtual display, but Chatterjee does suggest these limitations. The examiner interprets this limitations as a host computer taking information (graphic and text) and making a bitmap out of the information which is reduces the color of the initial data (Applicant's specifications page 4, bottom – page 5, top) in order to provide fast access to the internet such that refreshing a web page is quick and efficient (Applicant's specifications, page 1, bottom). Charterjee, for example, disclose a method for dynamically changing the color depth of objects displayed in a computer system that changes the color depth of objects in memory to match the color depth of the device (Chatterjee, Title and Abstract), where bitmaps are created and stored in memory for transferring a bitmapped image to a display screen (col 5, lines 27-30). The changed color depth image copy is stored in a memory for transferring the copy to the display device and retaining the copy for future rendering of the changed image (col 2, lines 34-38; lines 42-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi to include a method for generating a bitmap image by dynamically changing the color depth of an object and retaining it in memory as taught by Chatterjee, providing the benefit of rapidly changing the color depth of existing

objects in system memory to create device independent bitmaps to match the color depth of the display devices (Chatterjee, col 1, lines 39-42; Title).

Regarding claim 4, Nahi teaches scrolling of the image for viewing by the user done at the device. For example, Nahi discloses a touch screen function on the display panel with a video graphic controller that responds to the touch screen interface that can be used by the pointing device (col 10, line 65 – col 11, lines 4).

Regarding claim 8, Nahi teaches allowing the user to input text and numbers, which can then be sent to the host computer, which then sends a refreshed image back to the device. For example, Nahi discloses an infrared transmitter based keyboard device that allows for alpha-numeric inputs to the network computers (col 1, lines 42-45) where the portable display device frequently refreshes the display (col 9, line 34).

4-2) Claims 3, 5, 6, 7, 10, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nahi et al (as cited above), in view of Chatterjee et al (as cited above), further in view of Guedalia (US 6356283, filed Jun 1998).

Regarding claim 3, Nahi teaches image is rendered by the browser compressed and resent to the device for displaying it to a user (this limitation is substantively similar as the limitations of claim 1 and is rejected under similar lines of rejection as claim 1 under the Nahi reference, above).

Nahi does not expressly teach, the color depth reduced, but Chatterjee does suggest these limitations (this limitation is substantively similar as the limitations of

claim 1 and is rejected under similar lines of rejection as claim 1 under the Chatterjee reference, above).

Nahi in view of Chatterjee does not teach, but Guedilia suggests a device that the user can click on the image of the web page and a message is sent to the host computer whereby the browser inputs the click into the web page which causes another web page to be received from outside. For example, Guedilia discloses a method for HTML driven interactive image client, where a user clicks on the image being displayed and the browser send the mouse pointer coordinates back to the server and the server embeds the corresponding response image into the HTML page being returned to the client (Guedilia, col 4, lines 13-18; col 1, lines 35-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi to include to include a method for generating a bitamp image by dynamically changing the color depth of an object and retaining it in memory as taught by Chatterjee, providing the benefit of rapidly changing the color depth of existing objects in system memory to create device independent bitmaps to match the color depth of the display devices (Chatterjee, col 1, lines 39-42; Title), further to include allowing a user to click on a portion of an image being displayed by the browser using a mouser pointer that is sent back to the server and the server send the response back to the client with the information embedding the image into the HTML page as taught by Guedilia, providing the benefit of a smooth interactive experience for a user rather than a bumpy experience, using a browser on a client for displaying maps (Guedilia, col 3, lines 63-67).

Regarding claim 5, Nahi in view of Chatterjee does not teach, but Guedilia teaches the user can click on the image of a web page displayed on the device and a message is sent to the host computer which contains information of the click location relative to the web page, and not only information of the click location relative to the display of the device. For example, Guedilia discloses a feature of HMTL called image maps, which enables the browser to send back to the server the coordinates within an image corresponding to the location of the mouse pointer when the user clicks on the mouse, used by server software to generate an HTML page in response to the user interaction (col 3, lines 38-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi in view of Chatterjee to include allowing a user to click on a portion of an image being displayed by the browser using a mouser pointer that is sent back to the server and the server send the response back to the client with the information embedding the image into the HTML page as taught by Guedilia, providing the benefit of a smooth interactive experience for a user rather than a bumpy experience, using a browser on a client for displaying maps (Guedilia, col 3, lines 63-67) and obviating the need for of using any special client software (Guedilia, col 3, lines 35-37).

Regarding claim 6, Nahi in view of Chatterjee does not teach, but Guedilia teaches the user can click on the image of a web page displayed on the device and a message is sent to the host computer which contains information of the click location relative to the web page to deduce exactly where the click location occurred relative to the web page.

For example, Guedilia discloses a feature of HMTL called image maps, which enables the browser to send back to the server the coordinates *within an image* corresponding to the location of the mouse pointer when the user clicks on the mouse, used by server software to generate an HTML page in response to the user interaction (col 3, lines 38-45). Whenever the user clicks on the image being displayed, the browser sends the mouse pointer coordinates back to the server. The server, then calculates which subregion these coordinates belong to, and dynamically embeds a corresponding response image into the HTML page being returned to the client (col 4, lines 13-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi in view of Chatterjee to include allowing a user to click on a portion of an image being displayed by the browser using a mouser pointer that is sent back to the server and the server send the response back to the client with the information embedding the image into the HTML page as taught by Guedilia, providing the benefit of a smooth interactive experience for a user rather than a bumpy experience (ie., for an interactive map), using a browser on a client for displaying maps (Guedilia, col 3, lines 63-67) and obviating the need for of using any special client software (Guedilia, col 3, lines 35-37).

Regarding claim 7, Nahi in view of Chatterjee does not teach, but Guedilia teaches the user can click on the image of a web page displayed on the device and a message is sent to the host computer which contains information of the click location relative to the display, whereby the host computer is already provided with the display location relative to the web page, as previous scrolling activity sent a message to the host computer

informing of the display location relative to the web page, *to allow the host computer to deduce exactly where the click location occurred relative to the web page.* For example, Guedilia discloses a feature of HMTL called image maps, which enables the browser to send back to the server the coordinates *within an image* corresponding to the location of the mouse pointer when the user clicks on the mouse, used by server software to generate an HTML page in response to the user interaction (col 3, lines 38-45). Whenever the user clicks on the image being displayed, the browser sends the mouse pointer coordinates back to the server. The server, then calculates which subregion these coordinates belong to, and dynamically embeds a corresponding response image into the HTML page being returned to the client (col 4, lines 13-18). Additionally, Guedilia discloses a client window that changes images as the user navigates (col 4, lines 9-11). The Examiner equates this teaching of Guedilia with the claimed limitation of regarding scrolling activity.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi in view of Chatterjee to include allowing a user to click on a portion of an image being displayed by the browser using a mouser pointer that is sent back to the server and the server send the response back to the client with the information embedding the image into the HTML page as taught by Guedilia, providing the benefit of a smooth interactive experience for a user rather than a bumpy experience (ie., for an interactive map), using a browser on a client for displaying maps (Guedilia, col 3, lines 63-67) and obviating the need for of using any special client software (Guedilia, col 3, lines 35-37).

Regarding claim 10, Nahi teaches compressed and sent to the remote device for displaying it to a user (this limitation is substantively similar as the limitations of claim 1 and is rejected under similar lines of rejection as claim 1 under the Nahi reference, above).

Nahi does not expressly teach, the color depth reduced but Chatterjee does suggest these limitations (this limitation is substantively similar as the limitations of claim 1 and is rejected under similar lines of rejection as claim 1 under the Chatterjee reference, above).

Nahi in view of Chatterjee does not expressly teach, but Guedalia teaches host computer receiving information from the outside and only information specific to the application is hard coded on the device, or *only sent once to the remote device*, and only information that is received from the outside is rendered in memory. For example, once the information is received for the HTML driven interactive image over the Internet, the system allows for efficient caching on both client and server side so whenever the user navigates back to the same image, the client provides an instant access without referring back to the server for the image (col 4, lines 25-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi to include a method for generating a bitmap image by dynamically changing the color depth of an object and retaining it in memory as taught by Chatterjee, providing the benefit of rapidly changing the color depth of existing objects in system memory to create device independent bitmaps to match the color depth of the display devices (Chatterjee, col 1, lines 39-42; Title), further to include

allows for efficient caching on both client and server side so whenever the user navigates back to the same image, the client provides an instant access without referring back to the server for the image as taught by Chatterjee, providing the benefit of reducing network latency for the client and boosted server performance (Guedalia, col 4, line 8).

Regarding claim 11, Nahi in view of Chatterjee does not teach, but Guedilia teaches information that is compressed and sent to the remote device sent in blocks, whereby each block contains *an identifier to identify the location of blocks relative to the web page*. For example, Guedilia discloses a feature of HMTL called image maps, which enables the browser to send back to the server the coordinates *within an image* corresponding to the location of the mouse pointer when the user clicks on the mouse, used by server software to generate an HTML page in response to the user interaction (col 3, lines 38-45). The HTML-driven interactive image maps are partitioned in a number of sub-regions which are invisible to the user, where the server calculates the region selected by the user and dynamically responds with the respective image into the HTML page returned to the client (col 4, lines 10-23).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi in view of Chatterjee to include allowing a user to click on a portion of an image being displayed by the browser using a mouser pointer that is sent back to the server and the server send the response back to the client with the information embedding the image into the HTML page as taught by Guedilia, providing the benefit of a smooth interactive experience for a user rather than a bumpy

experience, using a browser on a client for displaying maps (Guedilia, col 3, lines 63-67) and obviating the need for of using any special client software (Guedilia, col 3, lines 35-37).

Regarding claim 12, Nahi teaches compressing information and sending to the remote device in blocks according to a priority. The compression portions of this limitation are substantively similar as the limitations of claim 1 and is rejected under similar lines of rejection as claim 1 under the Nahi reference, above. Furthermore, for the limitations regarding blocks, Nahi discloses graphical data blocks that are preferentially transmitted between the local host computer system and the portable display tablet in a compressed form (col 5, lines 1-5).

Nahi in view of Chatterjee does not teach, but Guedilia teaches portions of the claim dealing with the dependence on the location of the display of the remote device with respect to the web page. For example, Guedilia discloses a feature of HMTL called image maps, which enables the browser to send back to the server the coordinates *within an image* corresponding to the location of the mouse pointer when the user clicks on the mouse, used by server software to generate an HTML page in response to the user interaction (col 3, lines 38-45). The HTML-driven interactive image maps are partitioned in a number of sub-regions which are invisible to the user, where the server calculates the region selected by the user and dynamically responds with the respective image into the HTML page returned to the client (col 4, lines 10-23; col 4, lines 18 – 23 discuss *quantizing* possible responses which is similar to prioritizing because images are being selectively chosen for potential display).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi in view of Chatterjee to include allowing a user to click on a portion of an image being displayed by the browser using a mouser pointer that is sent back to the server and the server send the response back to the client, in a quantized manner with the information embedding the image into the HTML page as taught by Guedilia, providing the benefit of a smooth interactive experience for a user rather than a bumpy experience, using a browser on a client for displaying maps (Guedilia, col 3, lines 63-67) and obviating the need for of using any special client software (Guedilia, col 3, lines 35-37).

4-3) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nahi et al (as cited above), in view of Chatterjee et al (as cited above), further in view of Gentile (US 5504842, issued Apr 1996)).

Regarding claim 9, Nahi in view of Chatterjee does not expressly teach host computer receives information compressed in a format which is decompressed and later recompressed, but Gentile does suggest it. The Examiner interprets this limitation as recompression for further rendering of compressed data. The Gentile reference discloses a method for processing data for a visual-output device with reduced buffer memory requirements, with a new compression scheme that is used to recompress the data (col 12, lines 17-19), where different compression algorithms may be used on the data to different bounding boxes determined according to the relevant compression factors (col 11, lines 45-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nahi in view of Chatterjee to include processing data for a visual-output device with reduced buffer memory requirements, with a new compression scheme that is used to recompress the data, where different compression algorithms may be used on the data to different bounding boxes determined according to the relevant compression factors as taught by Gentile, providing the benefit of accommodating a variety of page representation characteristics by permitting visual display on a device with a reduced-size memory resulting from selective compression of data (Gentile, col 1, line 65-67; line 18).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam Sain whose telephone number is 571-272-4096. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6-5-5/10/6
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